

10/678,053

• RESP. DATED: 2/6/06 •

OA DATED: 10/4/05

REMARKS

This response is provided to the Office Action of **October 4th, 2005**. Filed herewith is a 3 month extension of time, extending the effective period to reply to April 4th, 2006. With the captioned reissue application claims 1-78 were presented for Examination. In the referenced Action, claims 1-55 were deemed allowable, while claims 56-78 were rejected.

At the onset, Applicant would like to thank the Examiner for the indication of allowable subject matter.

In view of the following remarks, favorable reconsideration of the pending application is respectfully requested.

35 USC §102(e) Rejection of Claim 70

In **paragraphs 1 and 2** of the Action, claim 70 was rejected as being anticipated by Wallace, et al. (USP 6,473,467) pursuant to 35 USC §102(e). In response, Applicant respectfully traverses the basis of the rejection.

In particular, Applicant respectfully submits that support for the elements of claim 70 can be found in the parent application (09/464,372), now US Patent 6,351,499 (whole document). Applicant notes that the priority date for the parent application is December, 1999, and as such pre-dates the Wallace reference by at least three 3 months.

Insofar as the parent application pre-dates any published priority date of the Wallace reference, Applicant respectfully submits that Wallace is ineligible as prior art against the pending application. Accordingly, Applicant respectfully requests that the §102(e) rejection be withdrawn.

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Applicant notes that claims 71 and 72 depend from patentable base claim 70.

Accordingly, Applicant respectfully submits that claims 71 and 72 are likewise patentable over the Wallace reference by virtue of at least such dependency. Thus, Applicant respectfully requests that the §102 rejection of such claims be withdrawn.

§103(a) Rejection of claims 56-69 and 71-78

In paragraphs 3 and 4 of the Action, claims 56-69 and 71-78 were rejected as being obvious in view of the Wallace reference, pursuant to 35 USC §103(a). In response, Applicant respectfully traverses the rejection of such claim.

With respect to claim 76, Applicant respectfully submits that support for such claim elements is provided in the parent application (whole document) of the instant application. Insofar as the parent application pre-dates any published priority date of the Wallace reference, Applicant respectfully submits that such reference is inelegible prior art with respect to claim 76. Accordingly, Applicant respectfully requests that the §103(a) rejection of claim 76 be withdrawn.

Applicant notes that claims 77 and 78 depend from patentable base claim 76 and submits that such claims are likewise patentable over the Wallace reference by virtue of at least such dependency. Accordingly, Applicant respectfully requests that the §103(a) rejection of such claims be withdrawn.

Turning to independent claims 56, 64 and 73, Applicant respectfully submits that Action has failed to establish a prima-facie basis for the rejection of such claims. In rejecting the claims, the Action has pointed to Wallace's teaching of the use of channel state information,

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concluding that the use of a probability of error or minimum Euclidean distance was an obvious application specific or design choice extension.

In particular, Applicant respectfully submits that it fails to identify within the Action's citation to Wallace any teaching or suggestion to use of a probability of error associated with received data or, according to one example implementation of such, the use of a calculated minimum Euclidean distance, to select a mapping scheme effecting a positive impact on a performance parameter associated with the communication channel.

Wallace teaches the use of full or partial CSI to precondition the signals for transmission. In reviewing Wallace, CSI is described as a characterization of the physical attributes of the communication channel itself (col. 8, lines 53-67), and not a quality measure associated with the transmitted data.

Moreover, the preconditioning described by Wallace is merely an adjustment to the phase or amplitude weighting (derived from the CSI matrices) applied to the signals on a per-antenna basis (col. 9, lines 4-15). In this regard, Wallace does not disclose or suggest the use of the probability of error information to control the selection of a mapping scheme, i.e., the conversion of data into symbols and the mapping of symbols to particular transmit signals (or, subcarriers).

In view of at least the foregoing distinctions, Applicant respectfully submits that claims 56, 64 and 73 are patentable over the Wallace reference by at least such distinctions. Accordingly, Applicant respectfully requests that the §103(a) rejection of such claims be withdrawn.

Applicant notes that claims 57-63, 65-69, 74 and 75 depend from patentable base claims 56, 64 or 73, respectively. Thus, Applicant submits that such claims are likewise patentable over

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the Wallace reference by virtue of at least such dependence. Accordingly, Applicant respectfully requests that the §103(a) rejection of such claims be withdrawn.

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CONCLUSION

In light of at least the foregoing remarks, Applicant respectfully submits that claims 1-78, are in condition for allowance and earnestly requests prompt notice thereof. *Applicant respectfully invites the Examiner to contact the undersigned representative for a telephone conference if it determined that such a conference could lead to allowance of one or more of the pending claims.*

Should it be determined that any additional fee is required, or overage returned, in association with this response, please debit or credit my deposit account number 50-0221 as appropriate.

Respectfully submitted,
Robert Heath, Jr.

Dated: April 4, 2006

by: /s/ Michael A. Proksch / Reg. No. 43,021 /
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